

**COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
South Central Regional Office**

STATEMENT OF LEGAL AND FACTUAL BASIS

Addendum to the September 5, 2006 Statement of Legal and Factual Basis

Solite, LLC and Giant Resource Recovery – Arvonias, Inc.
Arvonias (Buckingham County), Virginia
Permit No. SCRO-30200

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. Pursuant to 40 CFR Part 70 and 9 VAC 5 Chapter 80, Solite, LLC (Solite) and Giant Resource Recovery – Arvonias, Inc. (GRR) have applied for a renewal of their Title V Operating Permit for their Arvonias, Virginia facilities. The Department has reviewed the application and has prepared a renewal of the Title V Operating Permit.

Engineer/Permit Contact:_____

Date: November 30, 2006

Air Permit Manager:_____

Date: November 30, 2006

Regional Director:_____

Date: November 30, 2006

1. FACILITY INFORMATION

PERMITTEES:

Solite, LLC
P. O. Box 68
Arvonía, VA 23004

and

Giant Resource Recovery – Arvonía, Inc.
P. O. Box 68
Arvonía, VA 23004

FACILITY LOCATION:

State Route 652, 1 mile west of Route 15 north of Arvonía

UTM Coordinates are ZONE: 17 EASTING: 735 km NORTHING: 4176.6 km

County-Plant Identification Number: 51-029-0005

SOURCE DESCRIPTION, BACKGROUND, AND PROPOSED PERMITTING ACTION:

NAICS Code: 327992 – Lightweight Aggregate Manufacturing

Solite, LLC (Solite) is a lightweight aggregate manufacturing operation. Giant Resource Recovery, Inc. (GRR) is a hazardous waste fuel provider located adjacent to Solite. For Title V purposes, the two plants are considered to be a single stationary source; however, the Title V permit has been divided into separate portions based on daily responsibilities of each plant. This permit action affects both portions of the permit.

A Title V permit was issued to Solite Corporation on December 3, 2001. On July 19, 2005, the permit was administratively amended due to a change in ownership (Solite Corporation was sold to Solite LLC and the permit was split into separate sections for Solite and GRR). On October 3, 2005, the permit was further amended to reflect permanent shutdown and removal of several emission units. On September 5, 2006, the permit was significantly amended to incorporate operating parameters used to demonstrate compliance with 40 Code of Federal Regulations, Part 63, Subpart EEE (Subpart EEE). Further changes to be included in the renewal process include incorporation of the Subpart EEE final replacement standards and incorporation of 3 permits (issued August 1, 2006) for portable stone processing equipment.

SUMMARY OF PERMIT CHANGES TO GRR PORTION OF PERMIT:

There are no changes to the GRR portion of the permit since the September 5, 2006 amendment.

SUMMARY OF PERMIT CHANGES SOLITE PORTION OF PERMIT:

The following changes have been made to the Solite portion of the permit since the September 5, 2006 amendment:

Changes to 40 Code of Federal Regulations, Part 63 (MACT) Requirements:

- Condition X.A.3 requires compliance with the current (“interim”) standards and the final (“replacement”) standards that were promulgated on October 12, 2005, and amended December 19, 2005, “as applicable”. Because there are still reconsideration rulings and possible litigation pending for the MACT revision, this wording is intended to limit permit requirements to the extent they are required by Subpart EEE. Limiting enforceability to the MACT standards themselves allows enforceability of permit conditions which are more stringent than the minimum requirements of the MACT. For example, the annual mercury limit in the permit was developed with assistance from DEQ waste staff to allow streamlining of that limit from Solite’s Resource Conservation and Recovery Act (RCRA) permit. The limitation in Condition X.A.3 does not restrict enforceability of that and similar permit limitations.
- Attachments B.1 and B.2 contain MACT standards of performance and provide linkage to the operating parameters used to demonstrate compliance with each standard. There are two versions of the attachment. Version B.1 reflects the interim standards that are currently in effect and that will remain in effect through October 13, 2008. Version B.2 contains the final standards that will become effective on October 14, 2008. The final standards are the same as the interim standards, with the addition of new standards (expressed in lb/MMBtu) for semi volatile metals (SVM) and low volatile metals (LVM). Operating parameter limits for the new final standards have not yet been established. Compliance testing for the new standards must be commenced by October 14, 2009 and completed within 60 days of commencement. Following compliance testing, Solite must submit a revision to their Notification of Compliance (NOC) to incorporate their demonstration of compliance with the new standards (including any new operating parameter limits needed to show compliance with the final standards). In accordance with Condition X.A.5 of the permit, the NOC revision will be accompanied by an application to amend the Title V permit.
- Condition X.A.12.f. includes a new excess emission notification requirement for the Bag Leak Detection System (BLDS). The additional requirement was included in the October 12, 2005 revision to Subpart EEE; the December 19, 2005 amendment clarifies the effective date of this requirement as October 14, 2008. Because there are still reconsideration rulings and possible litigation pending for the MACT revision, the permit condition is worded to apply only to the extent it is required by Subpart EEE.

- Conditions X.A.3 and X.A.4 refer to “compliance dates”. The compliance date for the interim standards (found in 40 CFR 63.1205) is September 30, 2003; therefore Solite is currently required to be in compliance the emission limits and destruction and removal efficiency (DRE) standards found in 40 CFR 63.1205. The compliance demonstrations are required to be accordance with the Compliance Provisions of 40 CFR 64.1206, except that the reporting requirement for excess alarm time for BLDS is waived. The compliance date for the final standards (found in 40 CFR 63.1221) is October 14, 2008. There is no waiver for the BLDS excess alarm reporting requirement after that compliance date.
- Attachment A was revised to include a limit on fuel viscosity. This parameter was included at the request of DEQ waste permitting staff, to allow streamlining of requirements from the Solite RCRA permit. Inclusion of this limit is considered within the regulatory authority of 9 VAC 5-80-110 and 40 CFR 63.1209.

Other Changes:

- Section VIII of the permit (previously reserved) contains requirements for 3 portable stone processing units which were permitted on August 1, 2006. Although the portable plant permits contain limits on fuel throughput and emissions for each site (ie, stationary source) at which they are operated, the Title V permit conditions only address operations at the Arvonía facility.
- Requirements for the lime storage silo (previously contained in Section IV of the permit) have been removed. In correspondence dated August 25, 2006, Solite requested removal of these conditions and stated that this equipment will no longer operate at the facility. A mutual shutdown agreement is being processed to make shutdown of the equipment federally enforceable.
- The annual throughput limit for crushed stone in Condition V.A.4. was revised based on a September 7, 2006 revision to the underlying permit. The increased throughput does not require an increase to the permitted emission limits for the bypass belt conveyor and no other conditions to the underlying permit were changed.
- A recordkeeping requirement for sulfur fuel content was added to Condition III.C.1. This requirement was inadvertently omitted from previous versions of the permit.

COMPLIANCE STATUS:

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time. The source was last inspected on August 23 and 31, 2005, and was found to be in compliance. The required annual emission statement and certification were submitted by Solite on January 30, 2006, as amended February 27, 2006.

TITLE V PROGRAM APPLICABILITY BASIS:

There is no change in Title V applicability since the Title V permit was issued on December 3, 2001. Solite remains a Title V major source for SO₂, NO_x, PM, chlorine, hydrochloric acid, and total HAPs.

PERIODIC MONITORING:

On September 5, 2006, Solite's permit was significantly amended to incorporate specific operating parameter limits demonstrating compliance with Subpart EEE. Since that amendment, there has been one addition to monitoring requirements. A limit on fuel viscosity was included at the request of DEQ waste permitting staff to allow streamlining of that requirement from the Solite RCRA permit. There are no other changes to periodic monitoring requirements since issuance of the September 5, 2006 permit.

Applicable monitoring requirements under the Hazardous Waste Combustion (HWC) MACT, 40 CFR 63, Subpart EEE, are contained in Section X and Attachment A of the permit. The MACT requires continuous monitoring for CO or hydrocarbon (in conjunction with monitoring for oxygen), and also contains a future monitoring requirement for particulate matter, once all performance specifications and operational requirements applicable to PM continuous emissions monitoring systems (CEMS) are promulgated.¹ MACT requirements also include continuous monitoring of numerous operating parameters, including but not limited to: combustion chamber temperature, combustion gas exit temperature, baghouse inlet temperature, flue gas flow rate, hazardous waste feedrate, feedrate of semi volatile and low volatile metals, and feedrate of total chlorine and chloride.

Section III of the permit contains monitoring requirements to demonstrate compliance with state regulations. These limits are separate from the MACT limits and were not streamlined from the permit. Although in some cases the limit in Section X of the permit (based on the MACT) may appear more stringent than the limit in Section III (state regulations), it is reasonable to keep both sets of limits in the permit. Monitoring requirements in Section X are established based on performance testing and are therefore subject to change if future testing supports a change in the operating limits. Further, Subpart EEE applies only during periods when Solite combusts hazardous waste (including residence time after firing of hazardous waste has ceased).

Monitoring requirements in Section III (State Regulations) apply regardless of fuel type and are not expected to change. There is a state limitation on fuel sulfur content, opacity, and

¹ PS-11, Specifications and Test Procedures for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources was promulgated in 2004. However, EPA intends to promulgate additional language to clarify operational requirements. Until this process is complete, use of PM CEMS is considered an alternative compliance demonstration. Subpart EEE sources can petition the Administrator or delegated states to use PM CEMS in lieu of monitoring operating parameters, but PM CEMS are not yet required. Verification of this interpretation was provided by Sasha Gerhardt, USEPA, at (703) 605-0632, on February 14, 2006.

particulate emissions from the kilns. Periodic monitoring requirements for opacity from the kilns are based on observation of the presence or absence of visible emissions. In the event visible emissions are observed, corrective action is required. If corrective actions do not result in the absence of visible emissions, VEE's are required to demonstrate compliance with the applicable opacity limit.

Opacity monitoring is deemed sufficient for demonstrating compliance with state regulations for these units since absence of visible emissions from a fabric filter is an indication that the control system is operating as designed. Furthermore, expected particulate emissions (based on a reasonable grain loading from the fabric filters) are well below emission limits established by state regulations.

Compliance Assurance Monitoring (CAM)

Generally, the requirements of 40 CFR 64, Compliance Assurance Monitoring (CAM) apply to each emissions unit meeting all of the following criteria at a major source required to obtain a Title V permit:

- The unit emits or has the potential to emit (in the absence of add-on control devices) quantities of one or more regulated air pollutants that exceed major source thresholds,
- The unit is subject to one or more emission limitations for the regulated air pollutants for which it is major before control, and
- The unit uses a control device to achieve compliance with one or more of these emission limitations.

Solite's kilns fulfill all three criteria and therefore, would apparently be subject to CAM for PM. However, 40 CFR 64.2(b) lists several specific exemptions to the CAM rule. Per 64.2(b), CAM is not required for national emission standards proposed after November 15, 1990. Therefore, since the kilns are subject to monitoring under 40 CFR 63, Subpart EEE, (2002 interim standards and final standards which were proposed on April 20, 2004) they are exempt from CAM for requirements for the standards under Subpart EEE. In accordance with 9 VAC 5-40-2560, Solite's kilns are also subject to a particulate emission weight rate standard which was issued prior to 1990. However, the monitoring required for PM under Subpart EEE is sufficient to represent CAM for the weight rate limitation.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the Code of Virginia, and the “Department of Environmental Quality Agency Policy Statement NO. 2-2003”.

F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

U. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on general condition F.

FUTURE APPLICABLE REQUIREMENTS

The operating parameter limits included in this permit amendment are based on MACT Subpart EEE interim standards which are currently applicable. Subpart EEE has been revised with the final standards promulgated October 12, 2005, as amended December 19, 2005; those standards are also included in the permit (Attachment B.2). The compliance date for the final standards is October 14, 2008. Because the final standards are under reconsideration, the permit contains a statement that the final standards apply only to the extent they are effective under 40 CFR 63 Subpart EEE.

INAPPLICABLE REQUIREMENTS

The startup, shut down, and malfunction opacity exclusion listed in 9 VAC 5-40-20 A 3 cannot be included in any Title V permit. This portion of the regulation is not part of the federally approved state implementation plan. The opacity standard applies to existing sources at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the

affirmative defense section of this permit are met. Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state that "At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions."

The notification of intent to comply (NIC) with Subpart EEE was submitted on October 2, 2000, as required. The NIC satisfied the requirements of 40 CFR 63.1210 and 40 CFR 63.1212. The final standards promulgated in 2005 require submittal of a new NIC for sources that previously complied with the NIC requirements of §63.1210, which were in effect prior to October 11, 2000, that must make a technology change requiring a Class 1 permit modification to meet the standards of §§63.1219, 63.1220, and 63.1221. However, since Solite will not make a technology change there is no requirement for a new NIC submittal.

INSIGNIFICANT EMISSION UNITS

There are no changes to listed insignificant emission units. Insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC HEARING AND COMMENT PERIOD:

Title V renewal permits are subject to a public comment period of at least 30 days. Additionally, EPA and affected states are afforded the same review opportunities as for initial permit issuance.

The draft permit will be placed on public notice in the Farmville Herald on September 8, 2006. The public comment period will begin on September 9, 2006 and end on October 10, 2006.

During the public comment period any interested person may submit written comments on the draft permit. All written comments should be addressed to the following individual and office:

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